

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1- 26 (canceled)

Claim 27 (currently amended): A hydrogen occluding material in a form of a fine powder capable of hydrogenation and/or dehydrogenation of hydrogen molecules or hydrogen atoms at about 200°C or below and under adequate control of pressure, said hydrogen occluding material comprising:

an aluminum hydride having a formula (1)



where $0 \leq x \leq 3$; and

a dopant functioning as a catalyst, wherein the dopant includes at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table, ~~chromium, iron and nickel and alkali metals~~, and at least one species selected from the group consisting of alkali metals, and compounds thereof, and wherein an amount of the dopant ranges from about 0.2 mol% to about 10 mol% of an amount of the aluminum hydride, wherein the aluminum hydride has a hydrogen capacity greater than an alanate, and wherein the hydrogen occluding material is capable of releasing a greater amount of hydrogen gas in one stage at a lower temperature ~~in the absence of mechanical treatment in an inert environment~~ as compared to the alanate.

Claim 28 (currently amended): A method for using a hydrogen occluding material in a form of a fine powder, the method comprising hydrogenating and/or dehydrogenating hydrogen molecules or atoms at about 200°C or below and under adequate control of pressure a hydrogen occluding material composed of:

an aluminum hydride having a formula (1)



where $0 \leq x \leq 3$; and

a dopant functioning as a catalyst, wherein the dopant includes at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table, ~~chromium, iron and nickel and alkali metals~~, and at least one species selected from the group consisting of alkali metals, and compounds thereof, and wherein an amount of the dopant ranges from about 0.2 mol% to about 10 mol% of an amount of the aluminum hydride, wherein the aluminum hydride has a hydrogen capacity greater than an alanate, and wherein the hydrogen occluding material is capable of releasing a greater amount of hydrogen gas in one stage at a lower temperature ~~in the absence of mechanical treatment in an inert environment~~ as compared to the alanate.

Claim 29-32 (cancelled)

Claim 33 (new): The hydrogen occluding material according to claim 27, wherein the at least one species selected from the group consisting of alkali metals is sodium.

Claim 34 (new): The method for using a hydrogen occluding material according to claim 28, wherein the at least one species selected from the group consisting of alkali metals is sodium.

Claim 35 (new): The hydrogen occluding material according to claim 27, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium.

Claim 36 (new): The method for using a hydrogen occluding material according to claim 28, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium.

Claim 37 (new): The hydrogen occluding material according to claim 27, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium and the at least one species selected from the group consisting of alkali metals is sodium.

Claim 38 (new): The method for using a hydrogen occluding material according to claim 28, wherein the at least one species selected from the group consisting of transition metals belonging to groups III to V of the periodic table is titanium and the at least one species selected from the group consisting of alkali metals is sodium.